



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/065,485      | 10/23/2002  | Jack L. Marion       | HDR01               | 7325             |

32635 7590 03/29/2005

MOUNTAIN ENGINEERING II, INC.  
1233 SHERMAN DR.  
LONGMONT, CO 80501

| EXAMINER |
|----------|
|----------|

WATKO, JULIE ANNE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2653

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/065,485

Applicant(s)

MARION ET AL.

Examiner

Julie Anne Watko

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Species B, drawn to Figs. 9-11b, currently claims 1-7 and 12-14, in the reply filed on December 9, 2004, is acknowledged.

### ***Drawings***

2. The drawings are objected to because there is no Fig. 3a, yet there are two Figs. 13a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities: The specification recites "Fig. 3a" in ¶ 0007, for example. This is inconsistent with the appearance of the drawings, which do not include any Fig. 3a.

Appropriate correction is required.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the **claims** are directed.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "recording system of claim c1" in line 1. It is unclear whether claim 1 is drawn to a "system" as recited in claim 1, line 5 or to a "tape recording device" as recited in claim 1, line 1.

Claim 2 recites the limitation "further comprising a spring" in line 1. It is unclear whether this limitation refers to the "flexure" of claim 1, line 8, or to an additional biasing part.

Claim 13 recites the limitation "tape drive according to claim c12" in line 1. It is unclear whether claim 12 is drawn to a "tape drive" as recited in claim 13, line 1, or to a tape recording device as recited in claim 12, line 1, or to a "servo system" as recited in claim 12, line 3.

Other claims are indefinite by virtue of their dependency from indefinite claims.

Art Unit: 2653

Claims 4-7 recite the limitation "the stabilizer" in line 1. There is insufficient antecedent basis for this limitation in the claims. For examination purposes, the Examiner interprets these limitations as a recitation of the "means to stabilize the tape" of claim 3, line 1.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-7, to the extent understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Plachy (US Pat. No. 5166848).

As recited in claim 1, to the extent understood, Plachy shows a tape recording device ("video or data recorder (not shown)", see col. 3, lines 39-40) comprising a supply reel and a take-up reel, a head for recording data to the tape or reading data from the tape of both, a servo system capable of moving the tape between the supply reel and the take-up reel past said head. (The foregoing limitations are interpreted as a statement of intended use. a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In

Art Unit: 2653

this case, the servo system could be used in a video or data recorder having all of the features recited.)

As further recited in claim 1, to the extent understood, Plachy shows a recording system, comprising an actuator (including 10 and 21) capable of moving said head 20 across the recording surface of said tape ("magnetic tape", see col. 3, line 48); a flexure 13 having a first end (left front end in Fig. 2) attached to the head and a second end (right rear end in Fig. 2) attached to the actuator; whereas the flexure is biased against the tape and therefore urges the head towards the tape; and whereas the flexure allows the head to move so that the head surface is substantially aligned with the tape.

As recited in claim 2, to the extent understood, Plachy shows that the flexure is a spring that provides a bias and thus pushes the head towards the tape. It is noted by the Examiner that the interpretation of the spring as the flexure is supported in the specification, page 10, line ("In the preferred embodiment the flexure is biased so that it acts as a spring and pushes the read-write head 80 against the recording media 6.").

As recited in claim 3, to the extent understood, Plachy shows a means (including drums 4 and 5) to stabilize the tape at the recording area.

As recited in claim 4, Plachy is silent regarding whether the means to stabilize the tape is a hydrodynamic bearing.

As recited in claim 5, Plachy is silent regarding whether the means to stabilize the tape is a dual bump hydrodynamic bearing and the stabilized area is between the two bumps.

As recited in claim 6, Plachy is silent regarding whether the means to stabilize the tape is a hydrostatic bearing.

Art Unit: 2653

As recited in claim 7, Plachy is silent regarding whether the means to stabilize the tape is a roller bearing.

It is noted by the Examiner that claim 3 is written in means-plus-function language that invokes the 6<sup>th</sup> paragraph of 35 U.S.C. 112. The stabilizing structure (including drums 4 and 5) of Plachy is an art-recognized equivalent of each of Applicant's recited structures; thus, Plachy's stabilizing structure anticipates claims 4-7, to the extent understood.

9. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Saliba (US Pat. No. 6369982 B2).

As recited in claim 12, to the extent understood, Saliba shows a tape recording device (see Fig. 4), comprising a supply reel 104 and a take-up reel 108, a head 144 for recording data to the tape of reading data from the tape or both, a servo system (inherently) capable of moving the tape from the supply reel to the take-up reel past said head; whereas the length 41 of the head is substantially less (see Fig. 14) than the width of the tape 10.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 2653

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saliba (US Pat. No. 6369982 B2).

Saliba shows a recording device as described above.

Saliba is silent regarding the specific dimensional limitations recited in claims 13-14.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to arrive at the claimed limitations in the course of routine experimentation and optimization. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed limitations in order to minimize contact so as to ensure effective operation with both longitudinal and azimuthal recording patterns as well as minimal wear and reliable long useful life as explicitly taught by Saliba (see col. 4, lines 8-13).

Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the dimensions set forth in claims 13-14 are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected



Art Unit: 2653

results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Biskeborn et al (US Pat. No. 5883770) show a head smaller than a tape (see especially Fig. 12).

Zwettler (US Pat. No. 6249401) shows a dual-bump tape guide 49 and head 50.

Winarski et al (US Pat. No. 6822820 B1) show hydrostatic tape guides 31 (see Fig. 4, for example).

The Examiner notes also the roller bearings 114 and 116 of Saliba (6369982 B2).

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2653

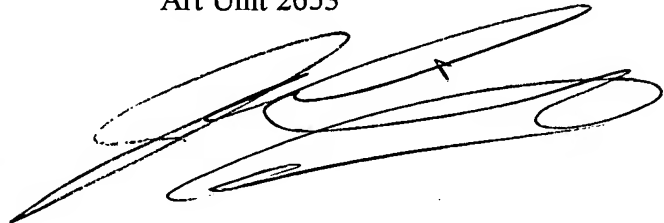
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597.

The examiner can normally be reached on Tues. & Thurs. until 9PM, Wed. & Fri. until 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Julie Anne Watko  
Primary Examiner  
Art Unit 2653

March 25, 2005  
JAW

A handwritten signature in black ink, appearing to read 'JAW', with a stylized, elongated horizontal stroke at the end.